# STORMWATER SOLUTIONS

## Clean Water and Pollution Prevention Assistance for Chula Vista Businesses

## STORM DRAINS ARE FOR RAIN

Municipal storm drain systems are designed to prevent flooding by transporting rain away from urban areas. Unfortunately, when rain or other water flows over streets and paved surfaces, it picks up pollutants and carries them into the storm drain system as well. This water – and all the contaminants it contains – eventually flows into rivers, lakes and the ocean, polluting these water resources.

Under federal and state law, all Chula Vista businesses are responsible for taking measures to prevent water pollution. Anything other than stormwater[i] cannot be discharged into the storm drain system or any natural body of water [such as rivers or lakes] either directly or indirectly from a company's building or site. A business may be fined for environmental damage caused by illegal or even inadvertent discharges.

**Storm Drain System ? Sewer System**

**The storm drain system is completely different from the sewer system. Water that flows down driveways and into gutters flows directly into rivers, lakes or the ocean – this runoff picks up contaminants along the way that are never removed, polluting once clean water bodies. The water that goes down a sink or toilet, on the other hand, flows to directly to wastewater treatment plants where it is cleaned and filtered before being returned to the environment or reused.**

Every company should develop and implement a stormwater management plan designed to control stormwater, reduce pollutants and prevent inappropriate discharge into the storm drain system. The plan should include a combination of specific techniques – called best management practices or BMPs – identified by experts in the area of water quality as most effective; these measures can be inexpensive and may even save a company money. A list of select BMPs is provided on the back of this flyer.

## STORMWATER PERMIT PROCESS

Although all businesses are required to take general measures to prevent water pollution, federal stormwater regulations require that certain projects and facilities also participate in the National Pollutant Discharge Elimination System (NPDES) permit process. In California, the State Water Resources Control Board (SWRCB) oversees NPDES permitting.

Under the NPDES program, California issues a statewide stormwater discharge General Permit. Construction projects greater than 5 acres and certain industrial facilities, including most manufacturing firms, must submit a Notice of Intent (NOI) to discharge stormwater with the SWRCB in order to comply with the General Permit.

Participation in the General Permit requires each regulated project or facility to develop and implement a Stormwater Pollution Prevention Plan, to eliminate non-storm water discharges into storm sewer systems or water bodies and to participate in ongoing inspections. The permit fee varies from $250 to $500 depending on location.

**For more information, contact**
State Water Resources Control Board
Division of Water Quality
ATTN: Stormwater Permit Unit
PO Box 1977
Sacramento, CA 95812-1977
(916) 341-5536
stormwater@dwq.swrcb.ca.gov
www.swrcb.ca.gov/stormwtr/

## RESOURCES

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| County of San Diego Stormwater Hotline | 1 (888) 846-0800 |
| County of San Diego Department of Environmental Health Stormwater Management Program | www.co.san-diego.ca.us/deh |
| San Diego Regional Water Quality Control Board | www.swrcb.ca.gov |
| California State Water Resources Control Board | www.swrcb.ca.gov |
| US Environmental Protection Agency (Region 9) | www.epa.gov/region09/water |
| Earth's 911 – Recycling and Pollution Prevention Resources | www.1800cleanup.org |
| I Love A Clean San Diego | www.ilacsd.org |

## SELECT BEST MANAGEMENT PRACTICES (BMPs)

This list is intended to provide a sample of potential BMPs appropriate for commercial and industrial businesses, construction projects and new developments; specific situations may call for other BMPs not listed here.

**REFERENCE BOOK**
**2003 Edition**

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SOURCES: COUNTY OF SAN DIEGO;
SAN MATEO STORMWATER POLLUTION PREVENTION PROGRAM/
SANTA MONICA BAY RESTORATION PROJECT/
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD/EPA
[OCTOBER 2002]

**Existing Commercial and Industrial Businesses**

- Sweep parking lots and outdoor storage areas regularly – never hose off paved surfaces or hose out dumpsters.
- Prevent spills and leaks from storage containers and dumpsters. When spills or leaks occur, clean up promptly and dispose of waste properly. For major contamination, large spills or serious hazardous waste incidents, obtain immediate response from specialists.
- Provide clearly labeled containers and storage areas for solid and hazardous waste. Store these products inside or in outdoor areas away from drainage inlets and waterways. Cover outdoors areas where potential pollutants are stored.
- Provide waste containers on site.
- Maintain landscaping properly. Reduce pesticide and fertilizer use and don't over-water after applying these products.
- Wash vehicles and equipment in areas draining only to the sanitary sewer.
- Label and inspect storm drain inlets on your property.
- Check for leaks from wastewater system into stormwater system.
- Educate employees in stormwater pollution prevention practices.

**Construction Projects**

- Phase grading and clearing to reduce the amount and duration of sediment exposure. Grade during the dry season [mid-April through October] and avoid grading December through February.
- Preserve existing vegetation. Seed and plant grasses, sod, trees, shrubs, vines and ground cover. Mulch to protect the soil from rainfall impact. Use geotextiles and mats for temporary soil stabilization [these area especially effective on steep slopes and channels].
- Remediate contaminated or highly acidic or alkaline soils promptly.
- Use gravel approaches to limit tracking of sediment offsite.
- Use earthen berms, temporary drains or swales to divert stormwater to a sediment trapping device or stabilized outlet. Install temporary slope drainpipes or roughen or terrace slopes. Install rock, grouted riprap or concrete rubble to protect outlets and slow water velocity.
- Install silt fences and temporary sediment barriers or stack sandbags along level contours. Construct brush and rock filters as barriers along channelized surfaces or install temporary ponding or basin areas or other sediment traps with gravel outlets.
- Run a 'dry site' – perform vehicle and equipment maintenance, fueling and cleaning in designated areas only.
- Recycle wash water.
- Prevent spills and leaks from storage containers and dumpsters. Clean up promptly when spills or leaks occur and dispose of waste properly. For major contamination, large spills or serious hazardous waste incidents, obtain immediate response from specialists.
- Minimize storing construction materials on site or store them covered in a designated area and install secondary containment systems.
- Provide convenient, well-maintained sanitary and septic waste facilities and arrange for regular service disposal.
- Avoid mixing excess amounts of fresh concrete on site and do not wash out concrete trucks into storm drains, open areas, streets or streams.
- Educate employees and subcontractors in stormwater pollution prevention practices.

**Planning and Design of New Developments**

- Incorporate design elements that encourage pedestrian and mass transit uses.
- Minimize directly connected impervious areas. Increase use of permeable pavements and surfaces such as pervious asphalt/concrete, pavers on sand and materials such as gravel, cobbles or mulch.
- Plan landscaping to include concave lawn areas and vegetated swales. Use a plant selection that maximizes infiltration.
- Design retention or wet ponds to be used as a site amenity as well as a component of the drainage system.
- Reduce street and sidewalk widths and limit on-street parking.
- Where stormwater cannot be treated by infiltration, include catch basins, inlet inserts / filters, oil / water separators and media filters to clean stormwater before it reaches the storm drain system.